ISTEP+: Grade 6 Science
Blueprint

There are seven Indiana Standards for Grade 6 Science, and they are divided into six categories for reporting student achievement. One of the six reporting categories is a combination of Standard 6 and Standard 7. Age-appropriate concepts are assessed within each category.

Reporting Category	Standards Assessed and Description	Percent Range *
1 – Nature of Science and Technology	**Standard 1** Questions may include understanding how computers have become invaluable in science; providing examples of materials that are available because of science and technology; understanding the purpose and use of variables in the design and analysis of experiments and how changing a variable may affect the outcome of an experiment; describing evidence that supports or does not support a result; and explaining how the solution to one problem may create other problems.	10-20%
2 – Scientific Thinking	**Standard 2** Questions may include writing instructions to carry out procedures; selecting tools to use when collecting data; organizing and interpreting simple tables and graphs; identifying relationships among the data; and recognizing and describing situations where comparisons may not be accurate.	10-20%
3 – The Physical Setting	**Standard 3** Questions may include comparing and contrasting characteristics of planets; explaining why the Earth has different seasons; explaining what causes the phases of the moon; describing how heating and cooling causes changes in the properties of materials; identifying how water is affected by heating and cooling; and describing how energy is a property of many objects.	24-34%
4 – The Living Environment	**Standard 4** Questions may include recognizing the sun as the source of all Earth's energy; distinguishing the main differences between plant and animal cells; recognizing plants and animals obtain energy in different ways; explaining how some cells work together to perform certain functions; and explaining how the characteristics of an organism can provide an advantage in surviving and reproducing.	15-25%
5 – The Mathematical World	**Standard 5** Questions may include making precise measurements and specifying appropriate units; reading and analyzing graphs to identify patterns, trends, rates of change, or to make predictions; explaining how predictions can be based on the past; and realizing that a prediction will be more accurate if based on a larger collection of data.	6-16%
6 – Historical Perspectives and Common Themes	**Standards 6 and 7** Questions may include explaining how modifying the parts in systems and models will change the results; recognizing many systems have feedback mechanisms that limit changes; explaining situations where observing a model would assist in understanding processes; describing how things change in a steady, repetitive, or irregular way; and explaining how making a table or graph is the best way to determine change.	6-16%

* This range represents the approximate emphasis for each reporting category on the assessment.